

DESCRIPTIONS OF NEW GENERA AND SPECIES OF
SCATOPHAGIDAE (DIPTERA).

BY J. R. MALLOCH.

The descriptions presented herein are those of species which have been in my hands for two or three years, the material having been obtained from various sources to enable me to draw up a key to the North American genera which recently appeared in the Report on the Canadian Arctic Expedition, 1913-18, Volume 3, page 75, 1919.

The type of *Pseudopogonota aldrichi* is in the collection of Dr. Aldrich, those of the other species are in the collection of the State Natural History Survey of Illinois.

Scatophaga grisea, sp. n.

Male and Female.—Black, very slightly shining, densely gray pruinose. Interfrontalia, face, anterior half of cheeks, and basal half of palpi reddish yellow. Thorax with four brown vittae. Abdomen without dorsal markings. Legs reddish testaceous, coxae, and the femora except their apices, black, gray pruinose. Wings slightly grayish, veins yellow basally, brown apically, cross-veins slightly darkened. Calypterae and halteres pale yellow.

Female.—Head when seen from in front nearly twice as wide as high at center; frons half as wide as head, about as long as wide; orbits wide, each with about five infraorbital and three supraorbital bristles and some soft short hairs; parafacial linear below; cheek about one-third as high as eye, the posterior portion of lower margin with soft pale hairs, only the vibrissal angle with strong black bristles (5); antennae with third joint about twice as long as second; arista with short pubescence. Thorax with sparse short hairs, the bristles not strong; presutural acrostichals weak, in about six rows; stigmatal and propleural bristles absent; ventral prothoracic plate very narrow, not broadened anteriorly; propleura hairy in part. Abdomen with second tergite longest. Legs stout, the femora noticeably so; bristles absent from femora; fore tibia with a series of long, fine hairs on postero-dorsal surface, and a long bristle beyond middle on antero-dorsal surface; mid tibia with one or two antero-dorsal, one postero-dorsal, and sometimes one posterior bristle; hind tibia with two or three antero-dorsal, and two postero-dorsal weak bristles; tibial spurs weak, not curved. First wing-vein bare; sixth vein complete; veins 3 and 4 slightly convergent apically.

Male.—Similar to female in color and habitus. The fifth sternite with two moderately stout lateral processes which have numerous soft pale hairs along their inner halves; hypopygium small.

Length 5-5.5 mm.

Type.—Male, Logan, Utah, May 20, 1914 (H. R. Hagan).

Allotype.—Wells, Nev., July 12, 1911 (coll. J. M. Aldrich).

Pseudopogonota, gen. n.

Generic Characters.—Similar in general habitus to *Pogonota zetterstedt*, but without the extra cross-veins in the male and with the palpi spoon-shaped in both sexes. First wing-vein bare; sixth vein complete. Hypopygial forceps bearded; second tergite elongated, very conspicuously so in male.

Genotype, the following species.

Pseudopogonota aldrichi, sp. n.

Male.—Grayish black, shining, conspicuously but not densely pruinulent. Head largely black, center of interfrontalia red, its anterior fourth, the face, and nearly all of cheek sooty black; second antennal joint and base of third reddish yellow; palpi pale basally. Thorax not distinctly vittate. Abdomen unmarked; hypopygium reddish testaceous, inferior forceps glossy black, with a dense fringe of long, golden, bristly hairs. Legs yellowish testaceous, coxae and femora more or less infuscated. Wings yellowish, veins pale, cross-veins infuscated. Calyptrae and halteres yellow.

Head less than twice as broad as high. Orbits narrow, each about one-seventh as wide as interfrontalia, bristles as in the preceding species, almost bare except for the bristles; face receding below; parafacial narrow; cheek over one-third of the eye-height, with a few hairlike bristles on posterior half and some very short hairs along lower margin; vibrissal angle separated by a depressed line from cheek, with about six bristles; proboscis slender; palpi spoon-shaped, with numerous short black bristles; arista with its longest hairs as long as width of third antennal joint. Thorax with presutural acrostichals short, 4-rowed; dorsal bristles distinct, but not long; stigmal and propleural bristles weak or absent. Abdomen slender, without bristles; hypopygium rather large, inferior forceps over twice as long as wide, rounded at apices, their outer or ventral surfaces bare, armed along their lower or inner margin with long, densely packed bristly hairs, the surface which is mesally directed with dense woolly hairs; fifth sternite with two short wartlike submedian protuberances, laterad of which there is a tuft of long black bristles.

Legs slender; femora without bristles; armature of tibia almost as in preceding species, but the surface hairs much longer. Third and fourth veins subparallel apically.

Female.—Differs from the male in having the head with the exception of upper half of occiput, apical two-thirds of third antennal joint, and proboscis reddish testaceous; thorax and abdomen largely reddish testaceous, infuscated above. Legs entirely pale.

Bristles of entire body stronger than in the male. Abdomen broader than in male, apex slightly compressed.

Length 7-8 mm.

Type.—Male, allotype, and two male and one female paratypes, Mt. Moscow, Idaho, no date. Paratypes, one male, same locality as type, September 9, 1908, near summit, on vegetation; one female, Tennessee Pass, Col., July 25, 1917. All taken by Dr. J. M. Aldrich.

Pseudopogonota aldrichi, var. *pallida*, var. n.

Male.—Differs from the type in having the head with the exception of upper half of occiput yellowish testaceous.

Type.—Male, and three paratypes, Craigs Mt., Idaho, no date; two males, Marshall Pass, Col., July 28, 1908, elevation 10856 feet (J. M. Aldrich).

This genus runs down to caption 20 in my key to the genera of Scatophagidae previously referred to. From *Ceratinostoma* and *Scatophaga* it is distinguished by the spoon-shaped palpi.

Neogimnomera, gen. n.

This genus will run down to Caption 10 in my key to the genera. From the genera therein included it is distinguished by the pubescent arista, absence of the stigmatal bristle, and the short but distinct intra-alar bristles. The apex of the abdomen in the female is not compressed as in *Gimnomera*, and the palpi in both sexes have a long apical bristle.

Genotype.—*Cordylura amans* Cresson.

This species was described from a single female. The male differs from the female in having the upper half of the occiput, upper half of pleura, dorsum of thorax except two partial vittae, and all of dorsum of abdomen except the hypopygium black.

I have seen two males and two females from Hood River, Ore., May 15, 1917 (F. R. Cole). The male allotype is deposited in the collection of California Academy of Sciences.

Gimnomera Rondani.

There are no species of this genus recorded from North America. I included the genus in my key to the genera previously referred to and now present the descriptions of the three species known to me from this country.

Key to Species.

1. Males.....2
 Females.....4
2. Interfrontalia and greater portion of face and parafacials sooty black; hypopygium with inferior forceps hatchet-shaped; fifth sternite with two small submedian wartlike elevations which are studded with minute black spines.....*atrifrons*, *sp. n.*
 Interfrontalia entirely reddish; hypopygium with the inferior forceps not hatchet-shaped, slightly dilated or tapered to apices.....3
3. Face blackened on lower half; third antennal joint not twice as long as second; inferior hypopygial forceps broadest considerably before apex, their tips pointed; fifth sternite as in *atrifrons*.....*incisurata*, *sp. n.*
 Face entirely pale; third antennal joint over three times as long as second; inferior hypopygial forceps gradually but slightly broadened to apices, truncate at tips; fifth sternite with two long slender submedian processes which are tapered to apices and furnished with short black setulae on their inner or upper surfaces.....*fasciventris*, *sp. n.*
4. Third antennal joint deep black, not twice as long as second; thorax entirely yellow; abdomen yellow, with a narrow glossy black fascia at apex of each tergite.....*incisurata*, *sp. n.*
 Third antennal joint obscurely yellowish, largely infuscated, three times as long as second; dorsum of thorax and metanotum as well as some markings on pleura black; abdomen with a narrow fascia on apex of each tergite and the genital segments glossy black...*fasciventris*, *sp. n.*

Gimnomera atrifrons*, *sp. n.

Male.—Occiput, posterior half of cheeks, upper part of face, and palpi yellow; second antennal joint reddish yellow, remainder of head black. Thorax and abdomen yellowish testaceous, the latter with poorly defined black fasciae at bases of tergites. Legs entirely pale.

Arista pubescent, very slender except at extreme base. Scutellum with four strong bristles.

Length 4.25 mm.

Type.—St. Anthony Park, Minn. (Lugger). One male.

Gimnomera incisurata*, *sp. n.

Male.—Yellow, third antennal joint, lower half of face, ocellar triangle, and tips of inferior hypopygial forceps black.

Arista as in preceding species. Other characters as in key.

Female.—Differs from the male in having the face entirely yellow, and the abdomen with narrow glossy black fasciae.

Length 4 mm.

Type.—Male, allotype, and three male paratypes, Dubois, Ill., May 10, 1918; one female paratype, same locality, May 25, 1917 (J. R. Malloch).

Gimnomera fasciventris, sp. n.

Male.—Yellowish testaceous; third antennal joint except base, ocellar triangle, upper half of occiput, dorsum of thorax except anterior lateral angles, metanotum, and upper half of pleura black. Abdomen with a narrow brownish fascia at apex of each tergite, seventh tergite glossy black.

Arista pubescent, swollen on a little more than its basal third. Hypopygium much more prominent than in other species.

Female.—Similar in color to the male.

Length 4 mm.

Type.—Male, allotype and one female paratype, Meredosia, Ill., May 29, 1917 (J. R. Malloch). Taken in a sand-pit.

TWO NEW TERMITES FROM ARIZONA.

BY THOMAS. E. SNYDER, *U. S. Bureau of Entomology.*

On June 30, 1919, Mr. George Hofer collected winged adults of *Kalotermes hubbarði* Banks, which were attracted to light in Sabino Canyon, Santa Catalina Mountains, Arizona. This was the first flight observed in the season of 1919. With these adults of *K. hubbarði* were smaller, darker adults of a *Kalotermes* which prove to be a new species. This new *Kalotermes* is hairy like *K. minor* Hagen, but is smaller and not so dark and the pronotum seems to be proportionately longer. Unfortunately only three adults were collected.

This new termite brings the number of Nearctic termites to 37 species and 2 varieties. The termite fauna of the Santa Catalina Mountains, Ariz., is richer in species than any other locality in the United States; 12 species and 1 variety occur there.